

MEMORIAL

ADDRESSED TO THE

MANAGERS

OF

THE ROYAL INFIRMARY OF EDINBURGH.

BY

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MEMORIAL, &c.

OFFICES of kindness, rendered gratuitously to those who are sick and helpless, claim the highest stations of human praise ; and justly may be said, of all human actions, to approach man the nearest to the Deity. Hospitals or infirmaries, formed for the reception of those who are unable to purchase the skill of physicians, or to find subsistence in food and necessaries during illness, are thus benevolent, as they are generally supposed to be beneficial institutions. The founders command the gratitude of mankind ; even the managers or guardians hold a place of high consideration in the opinion of the public. But though the motive, which prompts to found hospitals for the above purposes, be allowed to be one of the most praise-worthy of motives ; and the intentions of those, who direct the management of these hospitals, be admitted to be uniformly good and benevolent ; yet, that the ultimate effect

be useful in society, or otherwise, depends upon matters connected with a knowledge of the causes and principles of things, as well as upon motive and intention. The public good or public injury, depending then upon the right or wrong application of principles of science and knowledge, it is fit, in an estimate of the real value of an institution of this nature, to consider the principle which has directed the construction and arrangement of wards, or sick apartments; the principle of science, and the knowledge of causes, which has directed the forming of rules of economical management; and lastly, the punctuality with which rules, thus formed, are observed and carried into execution.

Dr. Gregory, in a memorial addressed to the managers of the Royal Infirmary, paints with a profusion of colours, the improper management of the surgical department of the institution under question. The writer of the present Memorial also takes the liberty, in a few words and in simple language, to bring in view some defects in the construction, arrangement and equipment of the house as an hospital, which impressed him strongly in a late and transient visit; and, which, do not appear to have attracted the notice of the president of the Royal College of Physicians. The writer is unwilling to be reckoned officious; but as he has learned from various and extensive experience, that the arrangement and economical management of hospitals, is a matter of more consequence to the good of the sick, than the medical prescriptions of

physicians, or the manual dexterity of surgeons, he trusts he will stand excused to the managers, for the liberty he takes in offering the following suggestions.

There is a fact within the knowledge, at least which ought to be within the knowledge, and constantly in the view of the managers of hospitals; that the health of man languishes in confined and ill ventilated apartments; that sick persons, confined in such apartments, make little progress in recovery; nay farther, that a noxious process then arises in an animal body, spreading a baneful influence around, and smiting with disease all those who come within the sphere of its action. In short contagion is there produced; and life is endangered, or destroyed by causes of our own creating,—by faults in the principle upon which hospitals are constructed, or by errors in economical arrangement. This occurs often, and serious mischiefs are often known to arise from the accumulation of sick persons in a circumscribed atmosphere. Hence it is evident, that spaciousness of wards, and thorough ventilation of the wards are indispensable properties of hospitals. This is a general truth, well known and established; and this being known and premised, it follows to shew, whether or not the wards or sick apartments of the Royal Infirmary possess the properties of space and ventilation.

The wards of the Royal Infirmary, not exceeding eleven or twelve feet in height, are not lofty, as the wards of an hospital ought to be; the width of

the apartment is moreover narrowed by the projection of closets ; and the area of the ward is broken and interrupted by posts and partitions, which seem to have been intended to mark divisions between beds. The defects are palpable. In remedy of them it must be observed, that, the height of the cieling cannot be altered without changing very materially the form of the house ; but the closets, the posts and partitions, as they can be removed easily, so they ought to be removed immediately, that the whole extent of the ward be free of incumbrance or impediment.

The Royal Infirmary, in its present position, is not situated advantageously for ventilation : confined on one side by a wall, on another by lofty houses, the air of it can only be preserved sweet and wholesome by the operation of strong causes, acting within. Of ordinary causes, essential to the preservation of purity of air, some do not exist ; others operate with diminished effect. The windows of the wards of the Royal Infirmary are not large ; and they are not well constructed for the admission of air. The influence of fire, so necessary to ventilation, is scarcely felt. The grates are small ; and the fireplaces are so fenced in by partitions, or interrupted by obstacles, that heat, or the circulation of air occasioned by heat, does not extend to the middle of the apartment. The air of the wards is thus heavy ; in damp weather it stagnates, and frequently is offensive. To remedy these defects some things require to be changed and altered ; some to be added

anew. The windows could not, perhaps, be widened easily ; but they may be sunk to the level of the floor without much difficulty ; and the sashes may be formed to be moved upwards and downwards, so that air may enter freely, and in all directions. The fire-places require alteration : they ought to be formed upon a plan to throw heat into the body of the apartment ; and where the influence of that heat begins to fail, the defect would be supplied effectually, by the erection of a stove, with a tube extending to the fire-place, at the other extremity of the ward. The benefits of fire, in preserving pure the air of sick apartments, are so well known, as not to require proof or illustration. Fire is, in fact, the best of all ventilators ; in damp weather it is indispensable. But that the ventilation be better promoted, the heat of the wards ought to be raised, at certain times, to a high temperature—perhaps to the temperature of a tropical climate. Under such succession and change of temperature, the air, which had been disposed to stagnate, will be put in brisk motion, and what is impure and heated will be moved to one of the issues or places of escape.

The ventilation of sick apartments is a matter of the utmost importance in promoting recovery from disease ; and fortunately it is a matter, which, in attainment, does not entail any very considerable expence. The Royal Infirmary is defective in this point ; but the defects may be removed easily, at least easily diminished. With this view, ventilators ought to be placed in the windows of the

wards, at proper distances ; ventilations, or issues for impure and heated air, ought to be formed in every ward,—conducted from the lower to the upper parts of the house, and finally conducted, in tubes, through the roof. These are to be considered as permanent means of ventilation,—to be kept in daily operation. But when the weather is damp, particularly in autumn, or where there are gangrenous ulcers, or suspicion of contagions imported into the house, fumigations of nitrous acid are extra means of considerable power. The benefits of this process have probably been overrated ; but no person of experience will pretend to say, that nitrous fumigation does not change and sweeten the air of sick apartments in a remarkable manner.

The space within the wards of the Royal Infirmary having been enlarged, as far as attainable, and the ventilation of the wards insured by the regular employment of the means suggested above ; the equipment of furniture and utensils, provided for the accommodation of the sick, next demands attention. Here some things, which exist, may be changed to advantage ; many necessary to comfort, even to health, require to be added. The frame of the bedsted in the wards of the Royal Infirmary, is made of iron—a material durable, and little liable to retain the contagion of disease ; the bottom part is formed of thick and spongy rope, disposed to receive and to retain every kind of contagious mischief. The bed is moreover a palliassé, filled with straw, a flock mattraßs and bolster or pillow, which,

if not actually noxious in themselves, are in many cases so offensive to the eye, that the Inspector of a Military Hospital would consider it as his duty to condemn them to the flames. The sheets are often dirty or ill washed ; the blankets and coverlet small, and beggarly : the appearance of the bed, upon the whole, is not inviting. The view of the writer of this memorial was only transient ; and his information is imperfect in many points, which respect the equipment of the hospital ; but he believes he will not err in saying, that there is not a good assortment of convenient or necessary utensils even of bandages and surgical apparatus : there is certainly little room for praise, on the subject of order and neatness in the arrangement among the various matters which meet the eye, in passing through the apartments.

The defects in the equipment have thus been pointed out : it remains to suggest the means of remedy. It would be captious to find fault with the iron frame of the bedsted, though hard wood, well painted, has, perhaps, upon the whole advantages ; the bottom part, however, may, and ought to be changed for canvas ; as canvas, properly fitted, and covered with a coat of paint, is not only durable, but easily purified, by washing and other means, ~~than most other materials~~. A palliasse and bolster new, or newly washed,—and filled with fresh straw, is the most convenient bed for hospitals. It is of itself sufficient without the flock mattresses ; for this, which cannot in every case be furnished new, and is not of a nature to be easily cleaned and puri-

fied, is a very improper material for the use of sick persons. The blankets and coverlet are scanty and shabby. Besides being clean and wholesome, they ought to be of sufficient extent to cover the body completely, and sufficient in number to keep it warm. Further, a rule of economy ought to be established for the management of the bedding—on no occasion to be dispensed with. The sheets ought, in all cases, to be boiled in potash and bleached; the other bedding baked and purified: the periods of change most rigidly observed in common circumstances; in extraordinary ones, the directions of the physicians or surgeons faithfully executed. The business of hospitals, like other business of men, ought to move on the most simple and economical principles. With this view, a stand, with a covered place for a small and neat chamber-pot or urinal, a place for slippers, and for a vessel with drink, ought to be placed by the side of each bed, in order that a sick person may be enabled to command, by his own effort, some necessary things during night, when nurses may be sleepy, or disposed to be negligent. Besides the above furniture, each ward or sick apartment ought to be rendered, as much as possible, independent in itself. With this view, there ought to be a command of water in every apartment, a water closet, a boiler for heating water, and a bathing vessel for the use of the patients of the ward, covered from the sight by a curtain. This bathing and dressing room is not to be considered as an ideal luxury: it is a provision of

essential utility, towards the accomplishment of the views of the physician or surgeon; for without the means of effecting complete purification of the persons of the patients, medical prescriptions and surgical applications will not be of much value. On this head, the provisions of the Royal Infirmary are deficient. The patients retain their own clothing, though its condition be not always proper; a custom, which admits the introduction of contagion into the house; while no sure means are placed in the hands of the physician or surgeon of stopping its progress when thus introduced. Much might be done to combat this evil, with the command of dresses;—without them little can be effected. The dress proposed will consist of a gown or robe de chambre of flannel or coarse cotton cloth; a shirt of coarse linen,—large and long; a night cap; a pair of socks, and a pair of slippers. The expence could not be great; the benefits, in a view to health, would be prodigious.

The alterations and additions suggested above, will not be objected, to in point of utility, by those who have knowledge of hospitals; but it probably will be observed, that they cannot be executed without greater funds than the Infirmary can command. Of this the writer can form no opinion, as he has no knowledge of the amount of the funds allotted to the support of the institution; but he knows this, in common with other men, that the point to be regarded, in the management of hospitals, does not so much relate to the number of sick received un-

der the roof, as to the capacity of doing justice to those received. If ever contagious disease arises within the walls of an hospital, or, when imported, is permitted to spread and propagate, the institution of such an hospital ceases to be a public good. The registers of the Royal Infirmary will show, whether or not this has occurred; whether or not common sores have degenerated into gangrenous ulcers. If this has happened, or if it happens frequently, there is error in management; error which, no one can suffer himself to doubt, the managers will speedily correct, when furnished with conviction of the fact, and instructed of the nature of its causes.

The writer of this memorial is not a man of calculation, and cannot say precisely, what may be the cost of the alterations and additions suggested above; but he believes that all, or the greater part of them, may be procured with the present funds of the Infirmary. The leading expence of hospitals consists in subsistence,—in provisions of meat and drink for the sick: the great means of recovery, among bodies of men collected together, consist in personal cleanliness, wholesomeness, and purity of air. To ensure these important advantages to the sick of the Royal Infirmary, it becomes necessary to form the table of diet upon rules of the strictest economy, and to diminish, for the time, the number of consumers. In this manner, if instead of three hundred sick, two hundred only be allowed to enter the house at one time, the value of the subsistence of the other hundred, applied to carry into execution the alterations

proposed, and to supply the additions of equipment of furniture and dresses, judged necessary to the complete and speedy recovery of health, the benefits of the institution, though apparently more limited, will prove, in reality, to be more extended ; for the course of disease being, by this means, rendered shorter, the recovery of strength is more speedy ; and it may be presumed, that an equal, if not a greater number of patients, under such circumstances, will pass through the hospital in the space of twelve months, than if the wards were always full, the economy defective, and the air impure.

Further, the Royal Infirmary is considered as an appendage of the medical school of the city of Edinburgh,—as a place to which young men resort to see diseases, and to learn to treat them successfully. In this view, it becomes a duty incumbent upon the managers of the institution, to give effect to such arrangements, as may banish contagion from the house, such arrangements, as may permit pupils to approach the sick, and to examine minutely the circumstances of disease, without danger to their own lives. And besides, as the Royal Infirmary is a part of the medical school, students of medicine ought to find in it, not only skilful physicians and dexterous surgeons, but an example of whatever is correct and proper in economy and management. This is a piece of instruction useful to every one ; but particularly useful to those, who are destined for the military or naval service of the country.

The mere medical and surgical duty of an hospi-

tal, is but a secondary part of what concerns the sick. Laws and regulations of order and economy, directed to health, are primary and essential. But these must be formed by persons, who have attained an extensive and systematic view of the subject; and executed, under the superintendence of persons, who are not only diligent and attentive in disposition, but who conceive aright the principles upon which they are to act. The direction of this belongs to the medical managers of the institution, men to whom the writer of this memorial will not presume to give instruction.

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